

**AMENDMENTS TO THE SPECIFICATION**

Please replace the paragraph beginning on page 29, line 30 with the following paragraph.

-- Mutant discriminators that are selected for each polymorphism are then loaded onto the microchip device under stringent conditions conducive to selective hybridization of discriminator probes to the amplicons. In a preferred embodiment, discriminator probes are hybridized by a touch down thermal method in which the microchip device is heated before and for a short period after the discriminator probes are added and then the temperature is slowly decreased. These temperature changes are followed by or performed in conjunction with several high salt washes to further increase specificity of the discriminator probe binding. In another preferred embodiment, discriminators are hybridized using non-stringent conditions such that both wild-type and mutant signals are approximately equal. Following hybridization, discrimination occurs using ~~thermal-chemical or e-stripping~~ thermal, chemical, or e-stripping, leaving only matched signals. --